

CLAIMS:

1. A biocompatible meniscal repair device, comprising:
  - a biocompatible tissue repair scaffold adapted to be placed in contact with a defect in a meniscus; and
  - a cell growth conduit flap attached to the tissue repair scaffold, the cell growth conduit flap being adapted to contact a tibial surface and communicate biological materials to a tissue defect in the meniscus.
2. The repair device of claim 1, wherein the cell growth conduit flap provides a conduit that enables cells and nutrients to travel from the synovium to the tissue repair scaffold and the tissue defect in the meniscus.
3. The repair device of claim 2, wherein the cell growth conduit flap is adapted to contact the synovium.
4. The repair device of claim 1, wherein the tissue repair scaffold is constructed from a bioabsorbable material.
5. The repair device of claim 1, wherein the tissue repair scaffold and the cell growth conduit flap are constructed from different materials.
6. The repair device of claim 1, wherein the tissue repair scaffold and the cell growth conduit flap are constructed from the same materials.
7. The repair device of claim 6, wherein the tissue repair scaffold and the cell growth conduit flap include at least one polymer derived from monomers selected from the group consisting of glycolide, lactide, and dioxanone.
8. The repair device of claim 1, wherein the tissue repair scaffold and the cell growth conduit flap include polydioxanone.

9. The repair device of claim 1, wherein the tissue repair scaffold and the cell growth conduit flap include a copolymer of glycolide and L-lactide.
10. The repair device of claim 1, wherein the tissue repair scaffold is formed from at least one material selected from the group consisting of natural polymers, synthetic polymers, and combinations thereof.
11. The repair device of claim 1, further comprising a viable tissue disposed on or within the tissue repair scaffold and effective to integrate with native tissue adjacent to the tissue repair scaffold.
12. The repair device of claim 1, further comprising at least one bioactive substance effective to stimulate cell growth.
13. The repair device of claim 12, wherein the bioactive substance is selected from the group consisting of a platelet rich plasma, cartilage-derived morphogenic proteins, recombinant human growth factors, and combinations thereof.
14. The repair device of claim 1, wherein the tissue repair scaffold and the cell growth conduit flap are formed from a single piece.
15. The repair device of claim 1, wherein the cell growth conduit flap is oriented such that it is substantially perpendicular relative to the tissue repair scaffold.
16. The repair device of claim 1, wherein the cell growth conduit flap and the tissue repair scaffold are oriented with respect to each other such that they form a "T" shape.
17. The repair device of claim 1, wherein the cell growth conduit flap and the tissue repair scaffold are oriented with respect to each other such that they form an "L" shape.

18. The repair device of claim 1, wherein the cell growth conduit flap has a thickness that is less than the thickness of the tissue repair scaffold.
19. The repair device of claim 1, wherein the density of the cell growth conduit flap is in the range of about 150 mg/cc to 350 mg/cc.
20. The repair device of claim 1, wherein the cell growth conduit flap has a void volume in the range of about 50 % to 95 %.
21. A method of surgically repairing meniscal defects, comprising:  
providing a tissue repair scaffold having attached thereto a cell growth conduit flap;  
positioning the tissue repair scaffold in contact with a defect in a meniscus while positioning the cell growth conduit flap in contact with a tibial surface; and  
fixing the tissue repair scaffold in position,  
wherein the cell growth conduit flap allows cells and nutrients to travel to the defect in the meniscus and thereby encourage healing of the meniscus.
22. The method of claim 21, further comprising the step of rasping the meniscus before positioning the cell growth conduit flap.
23. The method of claim 21, further comprising the step of rasping the synovium before positioning the cell growth conduit flap.
24. The method of claim 21, further comprising placing the cell growth conduit flap in contact with the synovium.
25. A method of surgically repairing meniscal defects, comprising:  
providing a cell growth conduit flap;  
positioning the cell growth conduit flap in contact with a tissue defect in a meniscus and in contact with a tibial surface; and  
fixing cell growth conduit flap in position,

wherein the cell growth conduit flap is effective to allow cells and nutrients to travel to the defect in the meniscus and thereby promote healing of the meniscus.

26. The method of claim 25, wherein the cell growth conduit flap is positioned in contact the synovium.

27. The method of claim 25, wherein the cell growth conduit flap provides a conduit that enables cells and nutrients to travel from the synovium to the tissue defect in a meniscus.

28. The method of claim 25, further comprising the step of rasping the meniscus before positioning the cell growth conduit flap.

29. The method of claim 25, further comprising the step of rasping the synovium before positioning the cell growth conduit flap.